Siyi Wang

Curriculum Vitae

KTH Royal Institute of Technology
Stockholm, 11428, Sweden
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✉ *siyiw@kth.se*
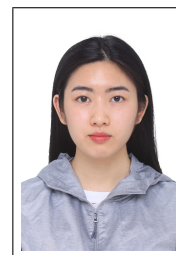
Education

Oct. 2019 – Apr. 2025
Dr. Ing., Computation, Information and Technology.
Technical University of Munich (TUM)
Supervisor: Prof. Sandra Hirche

2017 – 2019
M.Sc., Control Science and Engineering.
School of Astronautics, Harbin Institute of Technology (HIT), Harbin
Supervisor: Prof. Ligang Wu

2013 – 2017
B.Eng., Building Electricity and Intelligence.
Schoold of Electricity Engineering and Automation, HIT, Harbin

Work experiences

Mar. 2025 – present
Postdoctoral Researcher, *Decision and Control Systems*, KTH, Stockholm.
Supervisor: Prof. Karl Henrik Johansson

2019 – 2025
Research Assistant, *Chair of Information-Oriented Control*, TUM, Munich.
Supervisor: Prof. Sandra Hirche

Research interests

- Value of Information in control
- Stochastic control and optimization
- Online control and learning

Project experiences

2022 – 2024
Participate in "6G-Life" program funded by the Federal Ministry of Education and Research of Germany

2019 – 2023
Participate in DFG Priority Programme "Cyber-Physical Networking (SPP 1914)"

Journal paper

- **Siyi Wang**, Yabin Gao, Jianxing Liu and Ligang Wu: Saturated sliding mode control with limited magnitude and rate. IET Control Theory and Applications 12 (8), 2018, 1075-1085

- **Siyi Wang**, Yulong Gao, and Sandra Hirche: Optimal transmission power scheduling for networked control system under DoS attack, IEEE Transaction on Industrial Cyber-Physical System. 2025

- **Siyi Wang** and Sandra Hirche: Infinite-horizon optimal scheduling for feedback control, accepted by IEEE Trans. Control of Networked Systems (TCNS)

- **Siyi Wang**, Zifan Wang, Xinlei Yi, Michael Zavlanos, Karl H. Johansson and Sandra Hirche: Risk-averse learning with non-stationary distributions, under review in Automatica

- **Siyi Wang**, Zifan Wang, Karl H. Johansson and Sandra Hirche: Risk-averse learning with delayed feedback, under review in IEEE Trans. Control and Networked Systems (TCNS)

- Ligang Wu, **Siyi Wang**, Yabin Gao, Jianxing Liu and Guanghui Sun: Constrained sliding mode control of MIMO nonlinear systems. SCIENTIA SINICA Informationis 51 (3), 2021

- Zifan Wang, Yulong Gao, **Siyi Wang**, M. M. Zavlanos, A. Abate and Karl H. Johansson: Risk-averse learning with delayed feedback, IEEE Transactions on Automatic Control (TAC), 2025

- Zhenyi Yuan, Yunfei Yin, Jianxing Liu, **Siyi Wang** and Ligang Wu, Trajectory tracking control of a four mecanum wheeled mobile platform: an extended state observer-based sliding mode approach, *IET Control Theory and Applications, 2020, 14(3): 415-426*

Conference papers

- **Siyi Wang** and Sandra Hirche: Value of information in networked control systems subject to delay and packet dropouts. 2023 62th IEEE CDC, 2023

- Zifan Wang, Yulong Gao, **Siyi Wang**, Micheal Zavlanos, Alessandro Abate and Karl H. Johansson, Policy evaluation in distributional LQR. L4DC, 2023

- **Siyi Wang**, Qingchen Liu, Precious U. Abara, John S. Baras and Sandra Hirche: Value of information in networked control systems subject to delay. 2021 60th IEEE CDC, 2021

- Yunfei Yin, Jianxing Liu, **Siyi Wang**, Hao Lin, S. Vazquez, L. G. Franquelo and Ligang Wu, Backstepping control of a DC-DC boost converters under unknown disturbances, *IECON 2018-44th Annual Conference of the IEEE Industrial Electronics Society,.*

Scholarship & Honors

2024	TUM Graduate school travel grant, TUM
2017, 2019	Outstanding graduate, HIT
2017 – 2019	Postgraduates scholarship, first class, HIT
	Special scholarship for recommended postgraduates, second class, HIT
2014	National scholarship for undergraduate, Ministry of Education, PR China
2012	Third prize (Jiangxi division), Chinese Mathematical Olympiad

Teaching experiences

2019 – 2023	Robotic control laboratory, teaching assistant, winter semester
2022, 2023	Advanced seminar on networked system and control, tutor, winter semester
2019 – 2024	Student supervision: 4 research internship, 2 bachelor thesis and 2 master thesis